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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/588,405

08/03/2006

Stephan Scharfenberg

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EXAMINER

HURLEY, KEVIN

ART UNIT

PAPER NUMBER

3611

MAIL DATE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/588,405	<b>Applicant(s)</b> SCHARFENBERG ET AL.	
	<b>Examiner</b> KEVIN HURLEY	<b>Art Unit</b> 3611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 21-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 August 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/3/06</u> .  | 6) <input type="checkbox"/> Other: ____.                          |

## **DETAILED ACTION**

### ***Specification***

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o).

The following terms used in the claims fail to find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description:

traction motor , traction gear, steer gear, steering motor, steering gear, traction motor shaft, steering motor shaft, input shaft of traction gear, miter gear, output shaft, vehicle framework.

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims.

Therefore, the traction motor , traction gear, steer gear, steering motor, steering gear, traction motor shaft, steering motor shaft, input shaft of traction gear, miter gear, output shaft, vehicle framework must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing

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should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 21-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 21 line 5 it is unclear what “vertical axle” is referring to. It would appear that this should be --vertical axis--.

In claim 22 it is unclear what is meant by “axially located”.

In claim 22 “the steering gear” lacks proper antecedent basis.

In claim 23 there is no connection recited between the traction motor shaft and the rest of the previously recited structure. Likewise for the steering motor shaft.

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In claim 24 it is recited that “the traction motor shaft (3) is co-axially driven by the steering motor shaft (9,55)”, however, according to the specification the driving engine shaft 3 is driven by the drive engine 2 and is in no way driven by the steering engine 4.

In claim 25 lines 1 and 4 it is unclear if “a spur wheel” is one of the spur wheels recited in claim 1.

In claim 25 line 3 it is unclear which spur wheel “the spur wheel” is referring to.

In claim 26 line 2 it is unclear which spur wheel “the spur wheel” is referring to.

In claim 26 line 2 it appears that “traction gear” should be --the traction gear-- to provide proper antecedent basis.

In claim 30 there is no connection recited between the “bearing outer ring of a rotary assembly” and the rest of the previously recited structure.

In claim 31 there is no connection recited between the “housing of the steering motor” and the rest of the previously recited structure.

In claim 32 there is no connection recited between the “hollow wheel and a radial external end of a third planet carrier” and the rest of the previously recited structure.

In claim 33 there is no connection recited between the “steering gear housing” and the rest of the previously recited structure.

In claim 34 there is no connection recited between the “brake” and the rest of the previously recited structure.

In claim 36 it is unclear what is meant by “one of a housing of the traction motor” and “one of a housing of the steering motor”.

In claim 37 there is no connection recited between the “steering motor housing” and the

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rest of the previously recited structure.

In claim 38 there is no connection recited between the “bearing outer ring of one of a rotary bearing assembly and a rotary assembly” and the rest of the previously recited structure.

In claim 39 there is no connection recited between the “a rotor of the steering motor”, “a fixed bearing outer ring of a rotary assembly bearing”, the “rotary assembly” and the rest of the previously recited structure.

In claim 40 line 2 it is unclear what is meant by “are designed on a housing”. This would not appear to be a structural limitation.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 21, 25-26 (as best understood by the examiner) are rejected under 35 U.S.C. 103(a) as being unpatentable over Avitan 5,128,598 in view of Nieminski et al. 4,513,839.

Avitan discloses a steering and drive wheel for a vehicle comprising:

a traction motor 12, a traction gear 16, a steering motor 21, and a steer gear 13, a rotor 17 arranged on a wheel hub being driven and swivels about a vertical axis, the traction motor, the steering motor, and the steering gear being arranged coaxially, the traction motor driving the traction gear, the steering motor being located adjacent the traction motor.

Avitan fails to disclose the traction gear including two spur wheels.

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However, such a gearing arrangement is well known in the art, for example as shown by Nieminski et al. which gearing includes a first spur wheel 16 driving a second spur wheel 17, which drives a shaft 18 connected to a bevel gear 19 meshed to second bevel gear 20. Such an arrangement provides a simple transmission between the traction motor and the drive wheel.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Avitan by using the transmission disclosed by Nieminski et al., in order to provide a simple transmission between the traction motor and the drive wheel.

#### ***Allowable Subject Matter***

7. Claims 23-24, 27-40 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN HURLEY whose telephone number is (571)272-6646. The examiner can normally be reached on Monday-Friday 9:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley Morris can be reached on 571-272-6651. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kevin Hurley/  
Primary Examiner, Art Unit 3611

January 23, 2009